# NNDSS Modernization Initiative Technical Assistance Coordination Team Update
## October 24, 2014

Colleagues,

Please find below the National Notifiable Diseases Surveillance System (NNDSS) Modernization Initiative (NMI) Technical Assistance (TA) Coordination Team Update for October 24, 2014. These e-mail updates are a collaboration among the Centers for Disease Control and Prevention (CDC), Council of State and Territorial Epidemiologists (CSTE), and the Association of Public Health Laboratories (APHL) and will be sent biweekly in an effort to keep reporting jurisdictions and other partners and stakeholders updated on the progress of NMI.

For more information on NMI, please see the NMI FAQS at http://www.cdc.gov/nmi/faq.html. If you have questions not answered in the FAQs, please send them to edx@cdc.gov.

## Message Mapping Guide Development Updates

- **Message Mapping Guide (MMG) Status Updates:**
  - The MMG Development Team recently hosted a meeting with CDC program subject matter experts (SMEs) and HL7 experts to discuss the policy for differentiating unknown vs. missing values in HL7 messages for those data elements that CDC programs have determined need this distinction.
    - SMEs from the CDC National Center for Respiratory and Infectious Diseases (NCIRD) and the STD program sent their feedback related to the unknowns policy. They did not suggest any changes to the policy itself but did submit a list of data fields that require the addition of indicator elements.
    - CDC is taking the following next steps:
      - The CDC Division of Health Informatics and Surveillance (DHIS) Message and Vocabulary Team is modifying draft MMGs for mumps, pertussis, and STD to include these indicator elements.
      - The MMG Development Team expects to send an e-mail to jurisdictions next week with a copy of the policy.
      - The MMG Development Team will also post the policy on the Draft MMG Web site for a 2-week external review.
      - Within 2–3 weeks of receiving feedback, the MMG Development Team expects to reconcile the feedback and incorporate indicator values in the Generic v2 and disease-specific MMGs.
      - The MMG Development Team will post the revised MMGs to the Draft MMG Web site when ready.
- **Mumps and Pertussis MMGs** (Stage I–Draft Phase):
  - The DHIS Message and Vocabulary Team is modifying the draft MMGs for mumps and pertussis to include indicator elements as specified by the CDC SMEs (see above).
  - Once this issue has been resolved, the MMG Development Team will update the timeline for MMG development, which will include a second external review period of 6 weeks.
  - During the external review period, the CDC Platform (CDCP) team will work to develop draft internal data provisioning requirements.
  - The MMG Development Team will deliver revised MMGs and artifacts on the basis of reconciled comments from the second external review period.

- **Congenital Syphilis and STD MMGs** ([Stage II–Reconciled Draft Phase](#))
  - The DHIS Message and Vocabulary Team is modifying the draft MMG for STD to include indicator elements as specified by the CDC SMEs (see above).
  - The MMG Development Team has incorporated indicator elements in the Congenital Syphilis MMG.
- **Generic v2 and Hepatitis MMGs** ([Stage III—Pilot Test-ready Draft Phase](#))
  - The MMG Development Team identified minor inconsistencies in the generic and hepatitis test scenario and test message documents that are being corrected. The information incorporated in the HL7 messages did not always reflect the information included for each test scenario. New test messages will be created from the revised test scenario.
  - The beta testing process will include one pilot jurisdiction (Michigan) for both guides.
- Those jurisdictions selected for pilot testing of the test-ready versions of MMGs should wait until contacted by the NMI Technical Assistance Coordination Team before using the test-ready MMGs and before submitting test messages to CDC. All other jurisdictions should not plan to submit data to CDC until the final MMGs have been posted to the PHIN Web site.
- For more information about MMG development, please see the NMI FAQs at [http://www.cdc.gov/nmi/faq.html](http://www.cdc.gov/nmi/faq.html).

## CDC Platform-Message Validation and Processing System Updates

- The CDCP-Message Validation and Processing System (CDCP-MVPS) team met with SMEs from AgileX and Deloitte to review and discuss a recent independent verification and validation (IV&V) targeted assessment of the MVPS software that Deloitte conducted on behalf of CDC. The MVPS software serves as a healthcare integration engine supporting various standards used across surveillance programs, such as National Electronic Telecommunications System for Surveillance (NETSS) and HL7. Through the MVPS software, incoming messages are validated and transformed to database values for subsequent use by surveillance programs.
  - CDC had Deloitte conduct the software assessment to identify areas for CDCP-MVPS improvement of performance of message processing.
  - Deloitte provided recommendations for improving the efficiency of message processing.
  - In relation to the evaluation, the CDCP-MVPS team has not made any changes to existing technology as of yet but is discussing possible changes.
- DHIS recently submitted the Message Evaluation and Testing Service (METS) for CDC Office of the Chief Information Security Officer Certification and Accreditation (C&A). DHIS expects the C&A process to take several weeks.
  - METS is designed to assist public health partners with preparing and communicating quality standard electronic messages as defined by the applicable messaging, vocabulary, and programmatic standards.
  - The primary goal of METS will be to develop a common message validation service for federal, state, and local public health agencies to test messages before sending them to CDC.
  - As public health agencies develop their systems to send messages to CDC, METS will be a tool to evaluate these test messages, ensuring their system is generating messages that conform to the proper message type structure, business rules, and content.
  - As part of the NMI effort, jurisdictions will be able to use METS to validate their notifiable disease test messages before sending them to CDC.

- CDC has developed and provided data provisioning requirements to AgileX for Generic v2, Hepatitis, STD, and Congenital Syphilis. Following are updates on specific requirements provided to AgileX:
  - Generic v2: The CDCP team has received the software build for Generic v2 from AgileX.
  - Hepatitis: The CDCP team has received the software build for Hepatitis from AgileX.
  - STD: The CDCP team received the software build from AgileX on 10/17/2014.
  - Congenital Syphilis: The CDCP-MVPS team is expecting a software build from AgileX on 11/14/2014, but this date may slip depending on when the MMG is modified and provided to the CDCP-MVPS team.
  - Mumps and Pertussis: The CDCP team will not define dates for CDCP-MVPS activities related to Mumps and Pertussis until those MMGs are finalized and posted for external partner review.
- For more information about the CDCP-MVPS, please see the NMI FAQs at http://www.cdc.gov/nmi/faq.html.

## Technical Assistance Updates

- NMI Technical Assistance Coordination Team representatives from APHL conducted a site visit to the Michigan Department of Community Health on 10/6–7/2014. Michigan IT staff, epidemiology subject matter experts, and leadership participated in on-site activities to prepare for implementing HL7 messaging per the Hepatitis MMG. As a result of this visit, the following occurred:

  - The NMI TA Coordination Team has completed the gap analysis to compare and map data elements captured in Michigan's disease surveillance system and the Hepatitis MMG and confirmed all CDC-required elements.

  - Upon the basis of findings from the gap analysis, the NMI TA Coordination Team is continuing work to ensure that the data extract and any additional mapping needed are complete. The data extract contains the information that populates the HL7 message.

  - The NMI TA Coordination Team introduced their pre-configured Rhapsody route to Michigan. This Rhapsody route will use the information in the data extract to create a valid HL7 message based on the Generic v2 and Hepatitis MMGs. The Rhapsody route also has built-in validators to catch errors or missing required data elements before the messages are sent to CDC. The team will continue to build out the route for pilot conditions as new MMGs enter the Phase III, Pilot Test-ready Stage.

  - Michigan successfully configured and tested their PHIN-Messaging System (PHIN-MS) staging route, which will be used to send test messages to the CDCP-MVPS user acceptance testing (UAT) environment.

  - The NMI TA Coordination Team continues to work virtually with Michigan to complete the remaining steps toward building test messages for Hepatitis.

- Upon the basis of their experience working with Michigan, the NMI TA Coordination Team will continue to develop tools and resources and provide them to other states as the resources are available to help them prepare for implementation.
- For more information about Technical Assistance:
  - Please see the NMI FAQs at http://www.cdc.gov/nmi/faq.html.
  - For pilot jurisdictions: If you have questions specific to NMI TA, please contact Laura Carlton, contractor to APHL, at lcarlton@TSJG.com.
  - For non-pilot jurisdictions: If you have questions or would like to request TA for MMG implementation through the Epidemiology and Laboratory Capacity for Infectious Diseases (ELC) Cooperative Agreement, please email edx@cdc.gov.

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Best,
Members of the NMI TA Coordination Team